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Stapled Set(s) of Extra Color Drawings/Photographs

Doc Code: Artifact Artifact Type Code: C

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CD(s) containing pages of specification

and/or sequence listing

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Doc Code: Artifact

Artifact Type Code: S

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CD(s) with content unspecified

Doc Code: Artifact Artifact Type Code: U

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Microfilm(s)

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☐

Video tape(s)

Doc Code: Artifact Artifact Type Code: V

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Model(s)

Doc Code: Artifact Artifact Type Code: M

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Bound Document(s)

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United States Patent Grants

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*Grants to the person or persons having
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Commissioner of Patents and Trademarks

Karnaly Cooper

Attest



US005413774A

United States Patent [19][11] **Patent Number:** **5,413,774****Schneider et al.**[45] **Date of Patent:** **May 9, 1995**

[54] **LONG-LASTING AQUEOUS DISPERSIONS
OR SUSPENSIONS OF
PRESSURE-RESISTANT GAS-FILLED
MICROVESICLES AND METHODS FOR
THE PREPARATION THEREOF**

[75] **Inventors:** Michel Schneider, Troinex; Feng Yan, Genève, both of Switzerland; Pascal Grenier, deceased, late of Ambilly, by Nadine Garcel, legal heir; Jérôme Puginier, Le Châble-Beaumont, both of France; Marie-Bernadette Barrau, Geneva, Switzerland

[73] **Assignee:** Bracco International B.V., Amsterdam, Netherlands

[21] **Appl. No.:** 991,237

[22] **Filed:** Dec. 16, 1992

[30] **Foreign Application Priority Data**

Jan. 23, 1992 [EP] European Pat. Off. 92810046

[51] **Int. Cl.⁶** **A61K 49/00**

[52] **U.S. Cl.** **424/9.51; 128/660.01;**
128/661.02; 128/662.02; 424/9.52

[58] **Field of Search** 424/9; 128/662.02, 660.01,
128/661.02; 530/427

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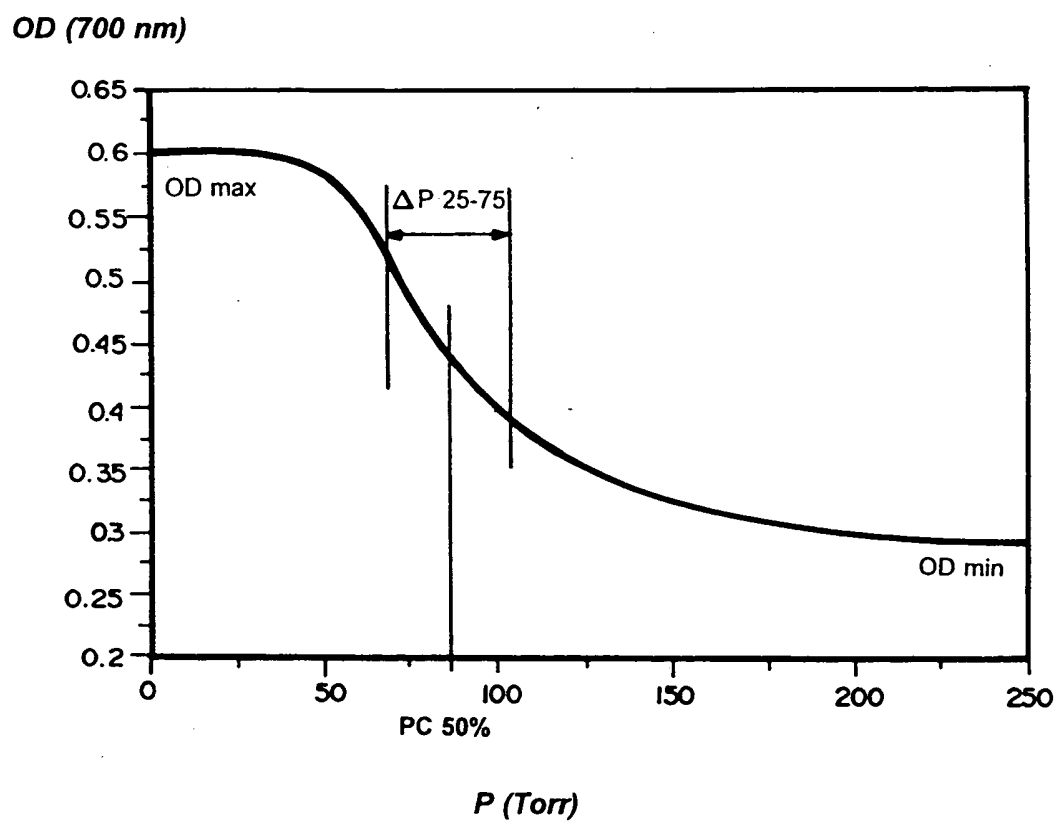
Primary Examiner—Shailendra Kumar

Attorney, Agent, or Firm—Nixon & Vanderhye

[57] **ABSTRACT**

One can impart outstanding resistance against collapse under pressure to gas-filled microvesicle used as contrast agents in ultrasonic echography by using as fillers gases whose solubility in water, expressed in liter of gas by liter of water under standard conditions, divided by the square root of the molecular weight does not exceed 0.003.

14 Claims, 1 Drawing Sheet

**Fig. 1**